

T-41-R – “Breeding Waterbird Survey – Central and North Louisiana”

Abstract: Populations of many North American secretive marsh birds (SMBs) have declined over the past 30 years, primarily as a function of wetland loss. Ranges for many of these species encompass Louisiana and researchers have investigated various characteristics associated with breeding populations in coastal wetlands, yet similar knowledge is lacking for other parts of the state. I investigated distributions and habitat characteristics associated with breeding SMBs in wetlands and rice fields of the lower Mississippi Alluvial Valley (MAV) of northeast Louisiana. In the 2007 and 2008 breeding seasons we conducted repeated bird surveys in 118 wetlands and 76 rice fields. Common Moorhens (*Gallinula chloropus*), Least Bitterns (*Ixobrychus exilis*) and Purple Gallinules (*Porphyryla martinica*), were the most commonly detected species in wetlands while breeding King Rails (*Rallus elegans*) and American Coots (*Fulica americana*) were rare. I built predictive wetland habitat models for Common Moorhens, Least Bitterns and Purple Gallinules in each year based on vegetation characteristics recorded within 100 m (local) and 1 km (landscape) of wetland sampling points. In general, local areas with greater coverage of water and robust emergent vegetation seem to attract breeding SMBs. No other local upland habitat characteristics or landscape cover variables were consistently, significantly associated with occupancy for any species across years. Wetlands dominated by robust emergent vegetation are rare in this region and birds may have to utilize them wherever they are available, disregarding other local and landscape habitat features. In 2007 no breeding individuals from any of these species were encountered in rice fields and only 7 rice sites were occupied by any species in 2008. Rice in the MAV does not reach a height adequate to support breeding SMBs (~ 65-70 cm) until late May at the earliest, 1-2 months after the breeding season commences. However, King Rails, Least Bitterns, Common Moorhens and American Coots were all observed in rice fields between June and August of both years. Thus, it is possible that rice fields in the MAV are used by late season breeders or birds rearing a second brood.

This grant was closed 31 March 2009. **For more information** about State Wildlife Grant T-41, or to obtain copies of interim or final reports, please contact the State Wildlife Grant Coordinator, LDWF Coastal & Nongame Division.